

ABSTRACT

The invention provides a semiconductor device exhibiting a stable and high breakdown voltage, which is manufactured at a low manufacturing cost. The semiconductor device of the invention includes an n-type silicon substrate; a p-type base region in the surface portion of substrate; an n-type drain region in the surface portion of n-type substrate; a p-type offset region in the surface portion of n-type substrate; an n-type source region in the surface portion of p-type base region; a p-type contact region in the surface portion of p-type base region; a gate electrode above the extended portion of p-type base region extending between n-type source region and n-type substrate (or p-type offset region), with a gate insulation film interposed therebetween; an insulation film on gate electrode and p-type offset region; a source electrode on n-type source region; and a drain electrode on n-type drain region. The p-type offset region is formed of a first p-type sub-region, a second p-type sub-region, and a third p-type sub-region.